

<b>FORM PTO-1449</b> U.S. Department of Commerce Patent and Trademark Office	<b>Docket No.</b> INVIT1100-1	<b>Serial No.:</b> 09/245,615
	<b>Applicant(s):</b> Hoeffler et al	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>	<b>Filing Date:</b> 02/04/99	<b>Group Art Unit:</b> 1643 1641

### U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
LVC	4,483,929	11/20/84	Szoka, F. C.	436	533	05/03/82

### FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION (YES/NO)
	NONE					

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

LVC	✓	Ekins and Chu, "Multianalyte microspot immunoassay. The microanalytical 'compact disk' of the future," <i>Ann Biol Clin</i> , 50:337-353 (1992)
LVC	✓	Ziegler et al., "SHORT COMMUNICATION; Cucumber Mosaic Cucumovirus Antibodies from a Synthetic Phage Display Library," <i>Virology</i> , 214:235-238 (1995)

<b>EXAMINER</b> Lisa L. Cook	<b>DATE CONSIDERED</b> 10/23/00
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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### U.S. PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
LVC	AA	4,591,570	05/27/86	Chang	436	518	02/02/83
	AB	4,816,567	03/28/89	Cabilly et al.	530	387	04/08/83
	AC	5,594,111	01/14/97	Stolowitz	530	391.1	01/28/94
	AD	5,623,055	04/22/97	Stolowitz	530	391.1	01/28/94
LVC	AE	5,648,470	07/15/97	Stolowitz	530	391.1	06/07/95

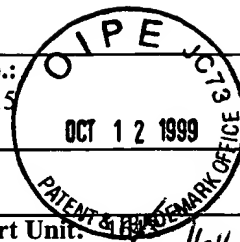
### FOREIGN PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATIO N (YES/NO)
LVC	AF	0 404 097	20/06/90	Europe	15	28	NO
	AG	WO 90/05144	17/05/90	PCT	13	00	NO
	AH	WO 92/01047	23/01/92	PCT	15	00	NO
	AI	WO 92/20791	26/11/92	PCT	15	00	NO
	AJ	WO 93/11161	10/06/93	PCT	15	28	NO
	AK	WO 93/19172	30/09/93	PCT	15	00	NO
	AL	WO 95/35505	28/12/95	PCT	33	543	NO
LVC	AM	WO 99/20749	29/04/99	PCT	15	10	NO

<b>EXAMINER</b> [Signature: Quba. J. Cook]	<b>DATE CONSIDERED</b> 10/23/00
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**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)**

LVC	AN	Adams et al., "Complementary DNA Sequencing: Expressed Sequence Tags and Human Genome Project," <i>Science</i> , <b>252</b> :1651-1656 (1991)
	AO	Ahluwalia et al., "A comparative study of protein immobilization techniques for optical immunosensors," <i>Biosensors &amp; Bioelectronics</i> , <b>7</b> :207-214 (1991)
	AP	Allen et al., "Isolation of High-Affinity RNA Ligands to HIV-1 Integrase from a Random Pool," <i>Virology</i> , <b>209</b> :327-336 (1995)
	AQ	Benoist and Chambon, "In vivo sequence requirements of the SV40 early promoter region," <i>Nature</i> , <b>290</b> :304-310 (1981)
	AR	Bhatia et al., "Use of Thiol-Terminal Silanes and Heterobifunctional Crosslinkers for Immobilization of Antibodies on Silica Surfaces," <i>Analytical Biochemistry</i> , <b>178</b> :408-413 (1989)
	AS	Binkley et al., "RNA ligands to human nerve growth factor," <i>Nucleic Acids Research</i> , <b>23</b> :3198-3205 (1995)
	AT	Bollon and Stauver, "DNA Transformation Efficiency of Various Bacterial and Yeast Host-Vector Systems," <i>Journal of Clinical Hematology and Oncology</i> , <b>10</b> (2):39-48 (1980)
	AU	Botstein et al., "Making Mutations <i>In Vitro</i> and putting them back into yeast," <i>Miami Winter Symposia</i> , <b>19</b> :265-274 (1982)
	AV	Broach, James R., "The Yeast Plasmid 2 $\mu$ Circle," <i>Cell</i> , <b>28</b> :203-204 (1982)
	AW	Centatiempo, Y., "Prokaryotic gene expression <i>in vitro</i> : transcription - translation coupled system," <i>Biochimie</i> , <b>68</b> :505-515 (1986)
	AX	Chong et al., "Single-column purification of free recombinant proteins using a self-cleavable affinity tag derived from a protein splicing element," <i>Gene</i> , <b>192</b> :271-281 (1997)
	AY	Clackson et al., "Making antibody fragments using phage display libraries," <i>Nature</i> , <b>352</b> :624-628 (1991)
LVC	AZ	Daniels and Lane, "Phage Peptide Libraries," <i>Methods</i> , <b>9</b> :494-507 (1996)

EXAMINER <i>Glenn L Cook</i>	DATE CONSIDERED <i>10/23/00</i>
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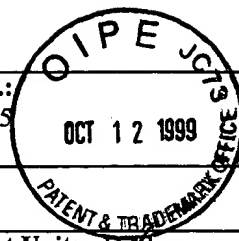
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L/C	BA	Freij-Larsson et al., "Adsorption behaviour of amphiphilic polymers at hydrophobic surfaces: effects on protein adsorption," <i>Biomaterials</i> , 17:2199-2207 (1996)
	BB	Gilman et al., "Isolation of sigma-28-specific promoters from <i>Bacillus subtilis</i> DNA," <i>Gene</i> , 32:11-20 (1984)
	BC	Gold et al, "Translational Initiation in Prokaryotes," <i>Ann. Rev. Microbiol.</i> , 35:365-403 (1981)
	BD	Gottesman, Susan, "Bacterial Regulation: Global Regulatory Networks," <i>Ann. Rev. Genet.</i> , 18:415-441 (1984)
	BE	Hamer and Walling, "Regulation <i>In Vivo</i> of a Cloned Mammalian Gene: Cadmium Induces the Transcription of a Mouse Metallothionein Gene in SV40 Vectors," <i>Journal of Molecular and Applied Genetics</i> , 1:273-288 (1982)
	BF	Holliger et al., "Diabodies: Small bivalent and bispecific antibody fragments," <i>Proc. Natl. Acad. Sci.</i> , 90:6444-6448 (1993)
	BG	Iba and Kurosawa, "Comparison of strategies for the construction of libraries of artificial antibodies," <i>Immunology and Cell Biology</i> , 75:217-221 (1997)
	BH	Jasney, Barbara R., "Insect Viruses Invade Biotechnology," <i>Science</i> , 79:1653 (1987)
	BI	John and Twitty, "Plasmids as Epidemiologic Markers in Nosocomial Gram-Negative Bacilli: Experience at a University and Review of the Literature," <i>Reviews of Infectious Diseases</i> , 8:693-704 (1986)
	BJ	Johnston and Hopper, "Isolation of the yeast regulatory gene GAL4 and analysis of its dosage effects on the galactose/melibiose regulon," <i>Proc. Natl. Acad. Sci.</i> , 79:6971-6975 (1982)
	BK	Jones et al., "Replacing the complementarity-determining regions in a human antibody with those from a mouse," <i>Nature</i> , 321:522-525 (1986)
L/C	BL	Kendall and Cohen, "Plasmid Transfer in <i>Streptomyces lividans</i> : Identification of a <i>kil-kor</i> System Associated with the Transfer Region of pIJ101," <i>Journal of Bacteriology</i> , 169:4177-4183 (1987)

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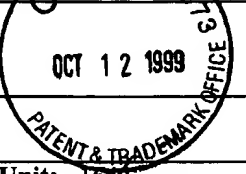
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	Applicant(s): Hoeffler et al.	
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LVC	BM	Kohler et al., "Continuous cultures of fused cells secreting antibody of predefined specificity," <i>Nature</i> , 256:495-497 (1975)
	BN	Marks et al., "By-passing Immunization," <i>J. Mol. Biol.</i> , 222:581-597 (1991)
	BO	Marshall and Hodgson, "DNA chips: An array of possibilities," <i>Nature Biotechnology</i> , 16:27-31 (1998)
	BP	McKnight, Steven, "Functional Relationships between Transcriptional Control Signals of the Thymidine Kinase Gene of Herpes Simplex Virus," <i>Cell</i> , 31:355-365 (1982)
	BQ	Morrison et al., "Chimeric human antibody molecules: Mouse antigen-binding domains with human constant region domains," <i>Proc. Natl. Acad. Sci.</i> , 81:6851-6855 (1984)
	BR	Okayama and Berg, "A cDNA Cloning Vector That Permits Expression of cDNA Inserts in Mammalian Cells," <i>Molecular and Cellular Biology</i> , 3:280-289 (1983)
	BS	Pease et al., "Light-generated oligonucleotide arrays for rapid DNA sequence analysis," <i>Proc. Natl. Acad. Sci.</i> , 91:5022-5026 (1994)
	BT	Presta, Leonard G., "Antibody engineering," <i>Current Opinion in Structural Biology</i> , 2:593-596 (1992)
	BU	Rader and Barbas, "Phage display of combinatorial antibody libraries," <i>Current Opinion in Biotechnology</i> , 8:503-508 (1997)
	BV	Ramsay, Graham, "DNA chips: State-of-the art" <i>Nature Biotech.</i> , 16:40-44 (1998)
	BW	Riechmann and Weill, "Phage Display and Selection of a Site-Directed Randomized Single-Chain Antibody Fv Fragment for Its Affinity Improvement," <i>Biochemistry</i> , 32:8848-8855 (1993)
	BX	Riechmann et al., "Reshaping human antibodies for therapy," <i>Nature</i> , 332:323-329 (1988)
	BY	Rubin, Gerald M., " <i>Drosophila melanogaster</i> as an Experimental Organism," <i>Science</i> , 240:1453-1459 (1988)
LVC	BZ	Silver et al., "Amino terminus of the yeast GAL4 gene product is sufficient for nuclear localization," <i>Proc. Natl. Acad. Sci.</i> , 81:5951-5955 (1984)

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LVC	CA	Ulmanen et al., "Transcription and Translation of Foreign Genes in <i>Bacillus subtilis</i> by the Aid of a Secretion Vector," <i>Journal of Bacteriology</i> , <b>162</b> :176-182 (1985)
	CB	Ward et al., "Construction and characterisation of a series of multi-copy promoter-probe plasmid vectors for <i>Streptomyces</i> using the aminoglycoside phosphotransferase gene from Tn5 as indicator," <i>Mol. Gen. Genet.</i> , <b>203</b> :468-478 (1986)
LVC	CC	Zapata et al., "Engineering linear F(ab') <sub>2</sub> fragments for efficient production in <i>Escherichia coli</i> and enhanced antiproliferative activity," <i>Protein Engineering</i> , <b>8</b> :1057-1062 (1995)

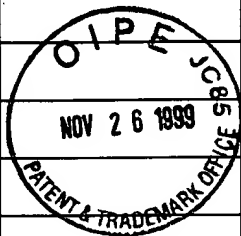
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		NONE					



### FOREIGN PATENT DOCUMENTS

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		NONE					

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

L/C	CD ✓	Jonsson et al., "Immobilization of immunoglobulins on silica surfaces," <i>Biochem. J.</i> , 227:373-378 (1985)
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<b>EXAMINER</b> <i>Olisa. L. Cook</i>	<b>DATE CONSIDERED</b> 10/23/00
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### U.S. PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
LYC	CE	5,653,939	8/5/97	Hollis et al.	G01N 15	06	

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		NONE					

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

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EXAMINER <i>Chia. J. Cook</i>	DATE CONSIDERED 10/23/00
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